

ABSTRACT OF THE DISCLOSURE

The invention relates to a process for the preparation of a block copolyetherester elastomer comprising polyester hard blocks and poly(alkylene oxide) polyol soft blocks, wherein at least one aromatic dicarboxylic acid or an ester-forming derivative thereof, and at least one alkylene diol, are esterified with a poly(alkylene oxide) polyol, comprising an poly(propylene oxide), end capped with ethylene oxide, are esterified, an ethylene oxide content of between 22 and 90% by weight, relative to the total weight of the poly(alkylene oxide) polyol, and an unsaturation content, being the total content of vinyl and allyl groups, of less than 35 meq per kg poly(alkylene oxide) polyol. The invention also relates to a block copolyetherester elastomer obtainable by said process, comprising an poly(propylene oxide) end capped with ethylene oxide, an Mn of between 2500 and 5000 g/mol; and an ethylene oxide content of between 22 and 90 % by weight; and wherein the block copolyetherester elastomer has a ratio by weight of poly(alkylene oxide) polyol/ aromatic dicarboxylic acid or the ester-forming derivative thereof of between 60/40 and 90/10; an average degree of polymerization of the polyester block of at least 3.5; and the block copolyetherester elastomer has an Mn of at least 25,000 g/mol.